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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/138,429	08/24/1998	IMRAN HASHIM	AMAT/2406/MD	4066

60300 7590 07/05/2006

LAW OFFICES OF CHARLES GUENZER
ATTN: APPLIED MATERIALS
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EXAMINER

MERCADO, JULIAN A

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 07/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



Office Action Summary	Application No. 09/138,429	Applicant(s) HASHIM ET AL.	
	Examiner Julian Mercado	Art Unit 1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-50 and 54-57 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-26, 31-35, 45, 46, 48-50, 54 and 5- is/are allowed.
- 6) ☒ Claim(s) 27-30, 36-44, 47, 55 and 56 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 27, 2006 has been entered.

Claims 21-50 and 54-57 are pending.

Claim Objections

The objection to claim 48 has been withdrawn.

Claim Rejections - 35 USC § 112

The rejection of claim 27 under 35 U.S.C. 112, second paragraph has been withdrawn.

Claim Rejections - 35 USC § 103

The rejection of claims 21, 22, 24, 32-35, 45, 46, 48-50, 54 and 57 under 35 U.S.C. 103(a) based on Hsu et al. (U.S. Pat. 5,589,039) and Miyata (U.S. Pat. 5,519,373) has been withdrawn.

The rejection of claims 23, 25 and 26 under 35 U.S.C. 103(a) based on Hsu, Miyata, and Boys et al. (U.S. Pat. 4,500,409) has been withdrawn.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 27-29, 36-43, 55 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu (U.S. Pat. 5,589,039) et al. in view of Miyata (U.S. Pat. 5,519,373).

Claims 30 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu and Miyata, and further in view of Boys et al. (U.S. Pat. 4,500,409).

Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu et al. in view of Miyata, and further in view of Tepman (U.S. Pat. 5,380,414).

The above rejections have been discussed in detail in prior Office actions and will not be reiterated. The rejection(s) is maintained for the reasons of record and for the additional reasons to follow in response to applicant's salient arguments.

Independent claim 27 has been amended to recite that the magnetic field is parallel to the substrate surface at a position closer to the substrate than to the target. For the reasons of record, it is maintained that the magnetic field is parallel to the substrate. See, for example, the detailed reasons set forth on page 3 of the May 10, 2005 Office action and page 4 of the November 25, 2005 Office action. Applicant submits that the examiner "seems to admit that the Miyata's magnetic field lines are parallel adjacent to the target and are curved adjacent to the substrate..." while also contending that "the curving field lines are substantially straight and parallel." (remarks on page 8) Applicant is partially correct—the magnetic field lines are indeed parallel to the target, while arguably *less* parallel (and hence more curved) adjacent to the substrate. This phenomenon is the very nature of magnetic field lines, as can be understood from reading any

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basic Physics book explaining the principles of magnetism. Nonetheless, parallel magnetic field lines along the target are maintained to extend parallel to the substrate; it is clear from the prior art that the target and substrate structures themselves are parallel. Thus, at least a portion of the parallel field lines along the target would extend parallel to the substrate surface. In considering the amendment to claim 27 in light of applicant's arguments, it appears to the examiner that applicant intends to recite that the magnetic field is --more-- parallel to the substrate surface at a position closer to the substrate than to the target. To do so would obviate the examiner's reading of the prior art towards the claim.

The rejection of independent claim 41 is maintained for the reasons of record. The examiner notes that the scope of claim 41 is identical to that considered in the prior Office action. Applicant's assertion that the language recited therein of extending horizontally along the substrate surface is not subject to the examiner's wide interpretation of the prior art has been fully considered but is not found persuasive. The examiner is of the position that prior Office actions have set forth clearly as to how and why the prior art teaches or at least suggests the claimed invention as recited in claim 41. See, for example, the November 25, 2005 Office on page 4. Further, the examiner is of the position that the magnetic field lines indeed *extend horizontally*, i.e. extend in the horizontal direction, as can be appreciated from the direction indicated by the arrows of the magnetic field lines, and albeit with a vertical component of direction.

Allowable Subject Matter

Claims 21-26, 31-35, 45, 46, 48-50, 54 and 57 are allowed.

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The following is an examiner's statement of reasons for allowance: the prior art of record does not teach or suggest the claimed invention regarding a flatter and more parallel magnetic field adjacent the substrate surface than that adjacent a target surface.

Conclusion

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian Mercado whose telephone number is (571) 272-1289. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



PATRICK JOSEPH RYAN
SUPERVISORY PATENT EXAMINER